ADOT MicroStation V8 Implementation

ADOT's Version 8 implementation consists of more than just level standards, cell libraries, and resource files. It is a complete package of CADD resources that will allow consultants and staff users to utilize the same workflow on network, stand alone, and laptop computers, with the same functionality. The same menu system utilized at ADOT is available to all users. The user may switch on the fly between the menu systems for the various workgroups at ADOT without closing files. Consultants will now be able to plot ADOT projects using the same plotting configurations as ADOT with a minimum of setup. This document will address the various issues encountered when upgrading from previous versions of Microstation to Version 8 in order to prepare ADOT plans.

The use of this package or workspace is not mandatory. A consultant may extract the level definition files (dgnlibs), cell libraries, font resource files, and line style resource files and include them in their own CADD system if they choose to do so.

***WORKSPACE**:* The ADOT configuration is installed as a workspace and as such has the same shortcomings as any other workspace. That is the limitations are set by Bentley not ADOT. Since variables are set at all configuration levels, a user may have to restart Microstation to switch workspaces. Closing a file and switching workspaces will not insure that all the variables will be set properly. This is especially true if DGNLIB files are not used in other workspaces and the user is switching from the ADOT workspace to another one. It is possible to modify the other workspaces to null the DGNLIB list variable to avoid this conflict. Other conflicts may exist.

***FILE FORMAT**:* Only Microstation Version 8 "dgn" files are to be utilized for vector drawing. ADOT does not support nor accept any other format of any other CADD system.

***FONTS**:* Only the font resource files delivered are to be utilized. No other fonts are to be used. Special character mapping has been utilized since the 1980's and ADOT will continue using the same fonts to insure backward compatability. The "font.rsc" file used is not the one delivered with Microstation V8 nor is the Inroads font resource file the same as Bentley's latest resource file.

***LEVELS**:* The first rollout of Version 8 will contain level names based on the original DGN file format, 1-63, (not Level 1, Level 2, etc). Level numbers match these names thus allowing the keyins "lv=1", etc. Also included are five working levels named after each group that users may utilize if they wish. The user must realize that these levels are to be considered temporary thus are not for final drawings. By default, these levels are set not to plot.

The second phase of level definition may take place at a later date. Anticipated is the adoption of new level names for existing and new features in addition to the original level standards. All levels are defined in a series of "dgnlib" files. Each work group has a library file as well as one standard lib file that contains the original 63 levels. Seed files contain only the default level. This level structure is to remain intact until such time as ADOT adds additional levels and provides information concerning their usage, even if additional levels appear in the dgnlib files. The only current exception to this is dealing with utilities. Level definitions for plotting of utilities

has now been expanded to forty levels and may be utilized immediately. **NO FILES SHALL BE DEEMED ACCEPTABLE THAT CONTAIN ANY OTHER LEVELS OTHER THAN THOSE PROVIDED BY ADOT.**

The configuration as delivered does not allow a user to add or rename levels nor can a user add any fonts. These are the only restrictions within the ADOT configuration.

PRINTING

The delivered printer "plt" files will need some modification. In general, "plt" files for half size printing are directed at the system default printer. If you utilize a printer other that the system default, the name must be added to the "sysprinter" line. If when activating a halfsize "plt" file, the form size comes up set to letter size, the form will need to be modified. The delivered defaults are to an HP LJ5000 using a postscript print drive. The form size is set to "Tabloid". This form name does not exist in PCL 6 drivers so you must rename it to "11x17" or whatever the proper form name is in your print driver. The same principals hold true in fullsize printing.

Greyscaling is set in a ".pen" file (\dev\printers\pens\). You may need to modify the RGB values if the graying is too dark or too light.

The fenced area used when plotting is the shape in cell "shape2" which is to reside within the project border file. The plotting scale is adjusted automatically based on this physical size. When utilizing the batch print application, the default batch plot specifation file is to be located in the same folder as the current design file . This will allow the user to properly set the name of the reference file to search to find the shape and adjust the plotting parameters accordingly. ADOT's standard naming convention does not allow for just one standard border file to be used on a project as each group has their own border sheet and naming convention.

INSTALLATION INSTRUCTIONS*:*

STEP 1

One compressed file is delivered. The CADD manager is to extract the contents to the root of the desired drive or share—preferably a server. The resulting folder structure is divided into folders for each workgroup ie RW, Roadway, Bridge, etc. The compressed file contains the proper folder structure and it must be retained when unzipping. If all of the files unzip into one single folder, you will need to reconfigure your zip program to keep the folder structure.

STEP 2

Under each group is a "Users" folder. A new folder must be created in this folder for each user in the desired default workgroup prior to configuring the system. For example, RW users would have a user folder under \RW\Users\"username". The name shall match the users logon username. ***THIS FOLDER IS MANDATORY.*** The logon username is the operating system variable "USERNAME" and in not a Microstation variable. The complete path to this folder is stored in the "USERROOT" variable within the Microstation environment. As long as the USERROOT variable points to a folder utilizied only by the current user, the configuration will work. If your company does not utilize the system variable USERNAME, you will be require to adjust this variable.

This folder shall contain the users user preference file, his function key menu, a menu configuration file ("menu.cfg"), user interface resource file, and any cell libraries belonging to the user. The ADOT environment

will automatically seach any cell libraries residing in the users folder as long as the library name begins with "user".

Note: In a network environment, it is recommended that all installations be performed by the CADD administrator or equivalent. Each group has its own "menu.cfg" file. The CADD administator should create the users folder and place a copy of the proper menu.cfg file in the folder. (Menu configuration files can be found in the "\dev\config\" folders for each group.

STEP 3

The next step is for the user to logon and start Microstation, opening any file. The user then chooses "MDL Applications" from the "Utilites" pulldown on the standard Microstation pulldown menu and selects the "Browse" button from the dialog box. The user then chooses "install.ma" located in the "ADOT_V8" folder. A dialog box will appear with pushbutton used to select the desired workgroup. This should be in the same group that contains the users "user folder". Orginal installations will then prompt the user to select the "install.ma" file a second time. Microstation will then need to be restarted for the changes to take effect.

The installation and configuration should now be complete.

Project Configuration Information

Please refer to the V8_flowchart dgn file for the configuration workflow. Please note that a "Project.pcf" file is not provided and may not be necessary with this system. A project configuration ("project.cfg") is run with the opening of every design file. The file "project.cfg" resides in each workgroup folder structure (ie \roadway\dev\config\). Also, if a "folder.cfg" resides in the same directory as the file being opened, this configuration is also used. This may or may not be useful for determining reference file locations. It is possible to have a different configuration for every folder within a project without using a standard ".pcf" but the standard Bentley project "pcf" files are still an option.

Miscelleneous information

The user may switch workgroups as he chooses by browsing to "ADOTMenu.ma" and choosing the desired workgroup. This does not modify the default workgroup when starting Microstation, only running the "install.ma" will change the default workgroup.

Install.ma will create and/or modify the following files:

1) ADOT.ucf will be created in the current Microstation user workspace path.
2) Dfltuser.cfg in the "Home/prefs" path is created to point to the ADOT.ucf workspace
3) Menu.cfg is created in the users folder defined as the USERROOT variable

Filenames—do not use spaces or more than one "." in a filename. Microstation design files use a "dgn" extension. ADOT file naming conventions use only "dgn" as an extension not bse, ref, ma, etc. ALL consultants are required to follow ADOT file naming conventions.

Reference file names---do not use variables in the full path name. Instead, use the MS_RFDIR variable. The parsing functions in both Microstation basic and MDL do not support anything other than logical drive letters for the drive.

Models—multiple models are to be used in cell library files only. Project CADD files shall contain only the default model.

Help—The Roadway “Help” folder is not delivered in the standard download due to its large phyical size (over 200 mb). For those interested, it can be downloaded from the Roadway Engineering webb site. It contains a wealth of information from Facesheets to Inroads “How to’s “ .

Linestyle scales--V8

Line style scales are handled much differently than with previous versions. Not only can the element have a scale but now both the drawing and any reference file may also have a scale. The active drawing linestyle scale is a view and plot modifier of the element scale. For example, the element scale from P & M comes to you normally with linestyle scales set at 0.5. If the active drawing scale is set at 0.5 also, the effective scale will be 0.25 for both viewing and plotting. In order to effectively take advantage of this option, elements should be rescaled back to 1.0 thereby controlling the desired linestyle scale in the sheet drawing with the active drawing scale. This allows for proper scaling on both plansheets and detail sheets utilizing the same reference files. This is a new concept for all users at ADOT. This also means that if you migrated your project from V7 to V8 the chances are pretty good that you need to modify the mapping files received from both Location and P&M. From within the sheet file, use the "Analyze" command to check the element. If the element scale is not set to 1.0, "Exchange Design" to the reference file and re-scale it utilizing one of the commands in the "Line Style Tools" dialog box. (Roadway menu--RdwyTools pulldown). Upon returning to the sheet file, select the desired sheet scale from the "Scales" pulldown on the Roadway menu. The see the effect, you may have to update the screen.

Using linestyles for a specific physical size

If you are using one of the linestyles for pipes to set for a desired dimension such as a pipe width, you must drop the line style to elements to prevent the active linestyle scale from changing the size.